EXECUTIVE SUMMARY

INTRODUCTION

At the request of the USEPA, Region 5, Enforcement Compliance Assistance Team, the Cleveland Office coordinated a multimedia compliance investigation at the LTV Steel Company located in East Chicago, Indiana. The multimedia inspection was conducted by Region 5 personnel from the Cleveland Office, Water Division, Air and Radiation Division, Waste Management Division and the Superfund Division. Personnel from the Indiana Department of Environmental Management also participated in the TSCA portions of this investigation.

The LTV Steel Indiana Harbor Works plant manufactures flat rolled steel products for use in automobiles and other applications. The Indiana Harbor Works was acquired by LTV Steel Corporation in 1985. The plant was formerly owned by Jones and Laughlin Steel Corporation. Prior to 1982, the plant was owned by Youngstown Sheet and Tube Company. Production operations began at the site in 1957.

Objective

The specific objective of the investigation was to determine compliance with:

- Clean Water Act (CWA) regulations, including National Pollutant Discharge Elimination System (NPDES) permit (IN0000205) requirements and Spill Prevention Control and Countermeasure (SPCC) regulations.
- Clean Air Act (CAA) regulations including National Emission Standards for Hazardous Air Pollutants (NESHAP), New Source Performance Standards (NSPS), State Implementation Plan (SIP) and permit regulations.
- Hazardous waste management regulations under the Resource Conservation and Recovery Act (RCRA).
- Toxic Substances Control Act (TSCA) regulations for polychlorinated biphenyls (PCBs)
- Underground Storage Tank Regulations
- Emergency Planning and Right to Know Act (EPCRA) Regulations

In addition, Region 5 inspectors attempted to identify plant activities that could impact the environment.

Investigation Methods

The investigation of the LTV Steel Plant included:

- A review of federal and state regulatory files.
- On-site inspections of the plant included:

  - CWA-NPDES compliance evaluation inspection on 6/19-23/00 and 6/26-30/00,
  - RCRA hazardous waste inspection on 6/19-23/00 and 6/26-30/00,
  - CAA inspection on 6/19-23/00 and 6/26-30/00,

- CWA-SPCC and FRP plant inspection on 6/22/00,
- TSCA-PCB inspection on 6/19/00 and 6/26-28/00,
- RCRA Underground Storage Tank inspection on 6/29/00 and a
- EPCRA screening inspection on 6/30/00.

- Inspections involved:

  - Discussions with plant personnel,
  - Inspection of facility operations, pollution control equipment
  - Plant records and documents review,
  - Visible emission readings taken for several air pollution sources,
  - Several wipe and soil samples were collected for PCB analysis,
  - and water samples of a seep discharging from the North Lagoon were collected for solids, oil and grease, and metals analyses.

Background

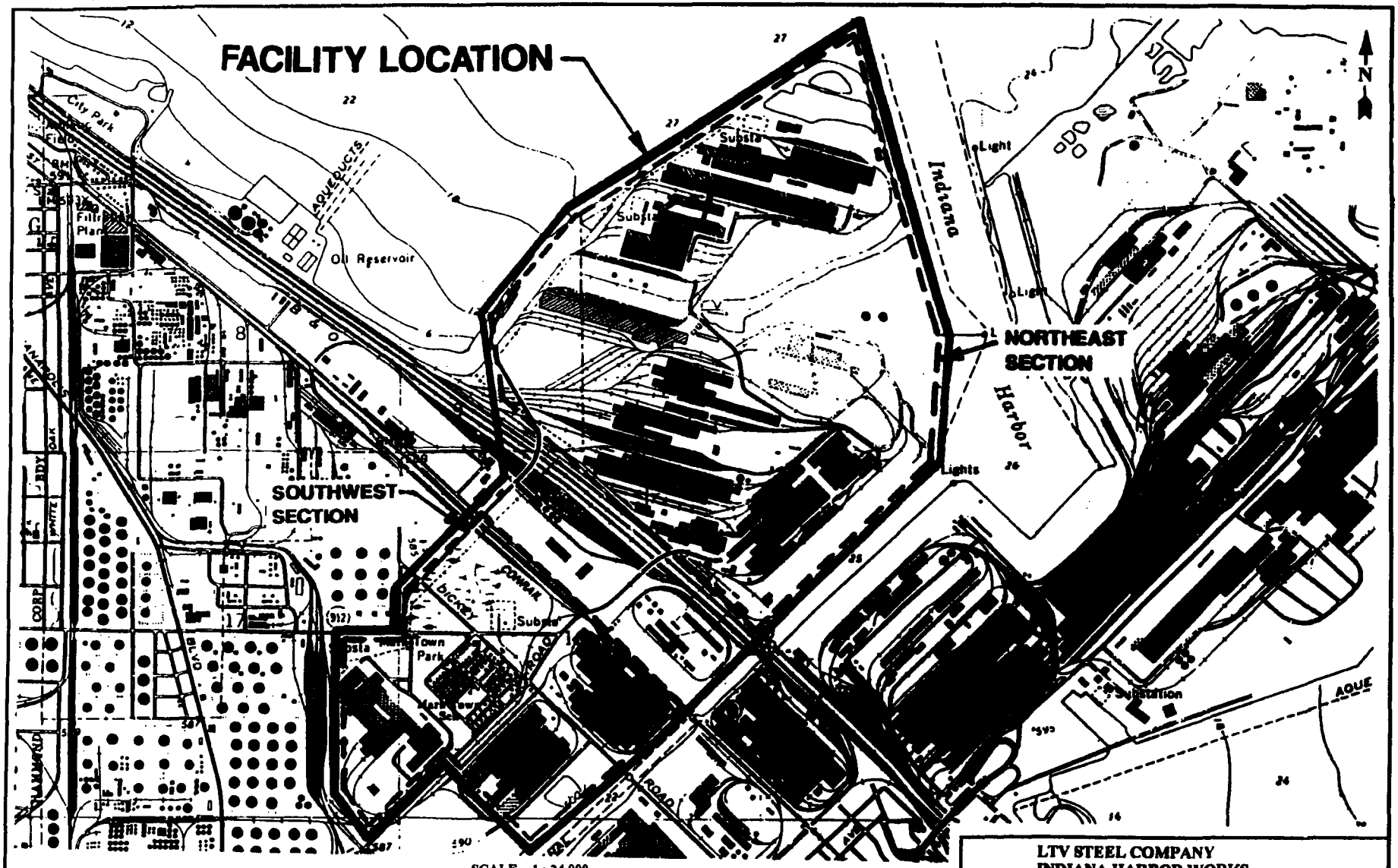
The LTV Steel Company - Indiana Harbor Works (LTV-IHW) is an integrated steel mill located at 3001 Dickey Road in East Chicago, Lake County, Indiana. The plant occupies over 1100 acres on the southern shore of Lake Michigan and employs approximately 3200 people. The facility is in an industrial and urban area and is bordered on the east by the Indiana Harbor Ship Canal; on the north by Lake Michigan; on the west by Amoco Whiting Refinery; and on the south by open land , residential property and small industries. Inland Steel, Inc. is located east of LTV across the Indiana Harbor Ship Canal. Figure 1 is a map showing the location of the LTV Steel plant site.

The LTV-IHW facility produces final and intermediate products including iron, raw steel, cast steel, hot strip, cold rolled strip, hot dip galvanized steel and tin and chromium electroplated steels . The current production capacity of the plant is 3.7 million tons per year of steel products. Process operations include: a sinter plant, blast furnaces, basic oxygen furnace shop, continuous casting facility, hot strip mill, acid pickling lines, cold rolling mills, annealing operations, temper mills and a variety of steel coating operations. Production operations at a byproduct cokemaking facility located at the site were discontinued in 1982. Current production levels for operations at LTV- IHW are listed in Table 1. Figure 2 is a simplified process flow diagram for the plant

Table 1 - LTV Steel Production Levels

Process Area	Production (tons/day)
Sintering	3,657
Ironmaking	10,438
Steelmaking	11,251
Vacuum Degassing	4,255
Continuous Casting	11,072
Hot Forming Operations	12,423
Acid Pickling	8,157
Cold Rolling Operations	12,537
Hot Coating - Galvanizing	2,889

Production data in Table 1 was obtained from draft NPDES Permit Fact Sheet - 2/17/00



SCALE 1 : 24,000

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

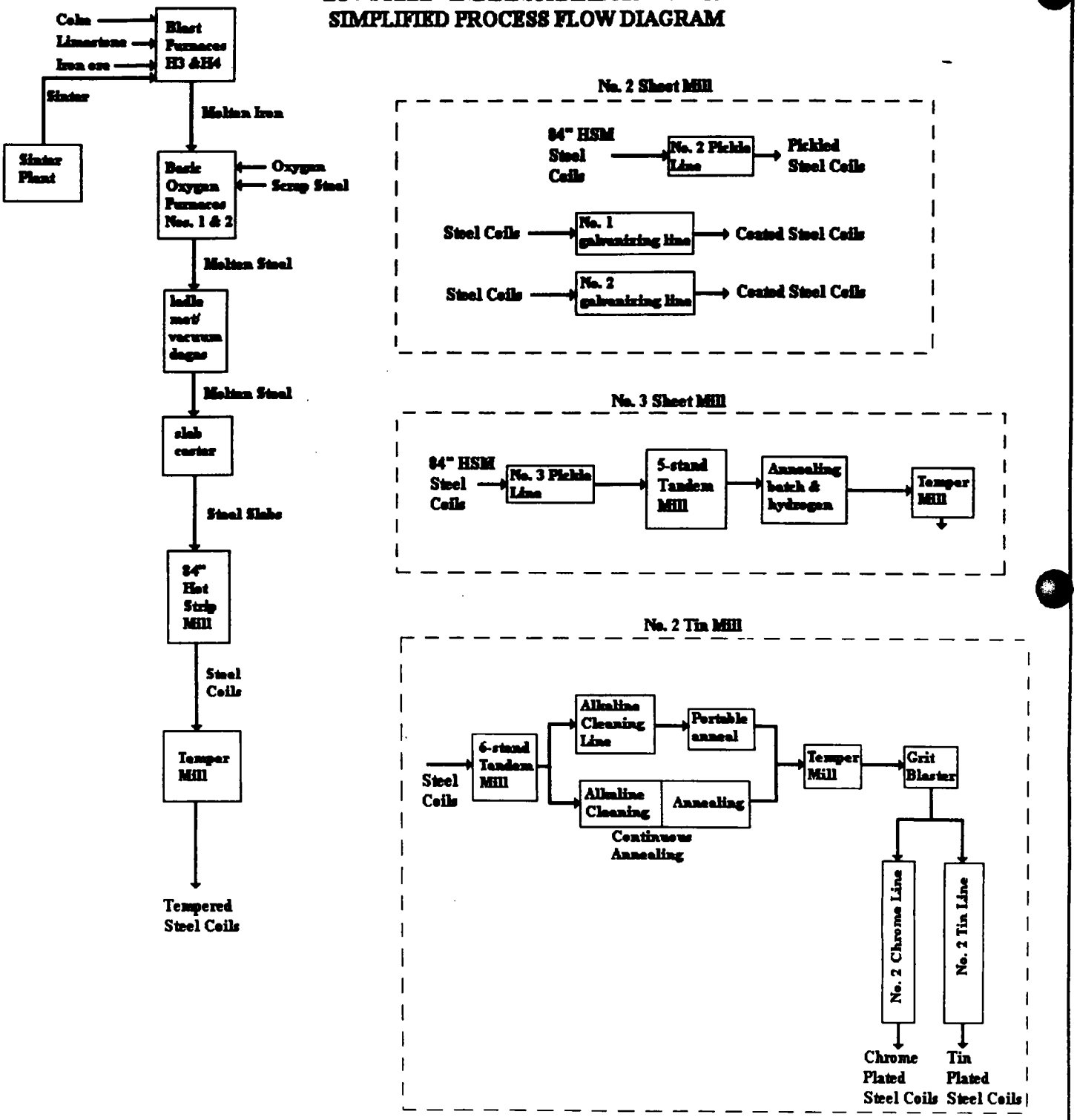
SCALE: 1" = 2,000'

SOURCE: MODIFIED FROM USGS, 1980

LTV STEEL COMPANY
INDIANA HARBOR WORKS
EAST CHICAGO, INDIANA

FIGURE 1
FACILITY LOCATION

FIGURE - 2
LTV STEEL - INDIANA HARBOR WORKS
SIMPLIFIED PROCESS FLOW DIAGRAM



Wastewater discharges from the LTV Steel Plant are regulated by NPDES permit No. IN0000205 issued on September 30, 1986. This permit was subsequently modified in 1990. The NPDES permit expired on September 29, 1991 but a new permit has not yet been issued. The old permit limits the wastewater discharges at the plant.

The LTV-IHW facility currently has five discharges to the Indiana Harbor Ship Canal and the company is required to monitor three internal wastewater discharge locations. These discharges include treated process wastewater, non-contact cooling water and storm water. The active wastewater discharge outfalls at the LTV site are listed and described in Table 2.

Outfall No.	Outfall Description	Average Discharge Flow (MGD)	Receiving Stream
Outfall 001	Treated process wastewater from internal monitoring station 101, non-contact cooling water and storm water	7.0	Indiana Harbor Ship Canal
Outfall 101	Central Wastewater Treatment Plant discharge consisting of treated wastewaters from the No. 2 Tin Mill and No. 2 Cold Sheet Mill areas which include wastewaters from acid pickling, cold rolling, hot dip galvanizing and tin and chromium plating operations	5.0	Discharge to outfall 001
Outfall 002	Non-contact cooling water and storm water generated in the No. 2 Cold Mill area	11.0	Indiana Harbor Ship Canal
Outfall 009	Non-contact cooling water and storm water generated in the powerhouse area	82.0	Indiana Harbor Ship Canal
Outfall 010	Non-contact cooling water and storm water generated in the blast furnace and powerhouse areas	77.0	Indiana Harbor Ship Canal
Outfall 011	Wastewater from machine shops; treated process wastewater from sintering, blast furnaces, continuous casting and vacuum degassing operations; non-contact cooling water and storm water	22.0	Indiana Harbor Ship Canal
Outfall 111	Treated process wastewaters from the hot strip mill are discharged to the north Lagoon through this internal outfall. The effluent from the north lagoon is recycled back to the mill service water system for reuse	55.0	Routed to the No. 3 pumphouse for recycle back to the mill service system
Outfall 211	Treated process wastewater from the No. 3 Cold Sheet Mill and No. 3 Cold Sheet Mill pickling areas are discharged to the North Lagoon through this internal outfall	1.0	Routed to the No. 3 pumphouse for recycle back to the mill service system

A number of the outfalls listed in the expired permit have reportedly been abandoned. These include outfalls 003, 004, 005, 006, 007 and 008. All storm water generated at the mill is now routed to the outfalls described in Table 2.

The Central Wastewater Treatment System (Outfall 101) consists of an oil reclaim facility; neutralization; scalping tanks for oil and sediment removal; flash mix tanks; clarifiers; a sludge

thickener and a centrifuge used for dewatering sludge.

The sintering, blast furnace, continuous casting and vacuum degassing operations are each equipped with dedicated treatment and recycle systems. The blowdown from these systems is routed to an earthen settling lagoon. Wastewater from the steelmaking operation is also treated to remove gross solids and discharged to the settling lagoon. The lagoon effluent is treated using a gravity sand filter system known as the Terminal Treatment System and the water discharged through outfall 011.

Process wastewaters generated in the hot strip mill are treated in scale pits and a mixed media pressure filter system. The process wastewaters from the No. 3 Cold Sheet Mill and the No. 3 Cold Sheet mill pickling line are treated in an oily wastewater treatment plant for metals, oil and solids removal. Both process wastewater streams are discharged to the North Lagoon and subsequently recycled for reuse in the mill. These wastewaters will ultimately be discharged through one of LTV's outfalls to the Indiana Harbor Ship Canal.

The LTV plant has numerous air emission sources. The largest sources include the two blast furnaces; sinter plant; and the Basic Oxygen Furnaces shop, which includes two basic oxygen furnaces,. a ladle metallurgical facility (LMF) and a vacuum degassing unit. The plant has variety of air pollution control equipment and methods that range from scrubber and baghouse systems to fugitive dust control methods for roads and process operations. Table 3 is a listing of the major air pollution sources and associated control equipment at the LTV plant. The air source permits for LTV Steel are issued by the Indiana Department of Environmental Management (IDEM). The company submitted a Title V permit application on November 6, 1996. A notice of administrative completeness was issued by IDEM on July 2, 1997.

Air Emissions Source	Control Equipment / Method	Pollutants of Concern
Blast Furnace Stoves - Combustion Stacks	NA	PM, SO_2
Blast Furnace H-3 Cast House	passive emission controls	PM, SO_2
Blast Furnace [illegible] Cast House	passive emission controls & a baghouse	PM, SO_2
Sinter Plant	main- windbox scrubber and breaker scrubber	PM, SO_2
Basic Oxygen [illegible]nace Shop - Basic Oxygen [illegible] eladle/Desulfurization [illegible] Ladle [illegible]gical Facility	Reladle/desulf baghouse, BOF electrostatic precipitator and ladle metallurgical baghouse	PM
Hot Strip Mill - [illegible]eat Furnaces	NA	PM, SO_2, NO_X
No. 2 Sheet [illegible]ume and Galvanizer Furnaces on [illegible]alvanizing Lines, Annealing Furnaces and Boilers	NA	PM, NO_X
No. 3 Sheet Mill - batch and open coil (hydrogen) [illegible]nealing Furnaces	NA	PM
Utilities - (8) boilers	NA	PM, SO_2
Fugitive Sources - Parking lots, roads, storage piles, materials handling, etc.	NA	PM

PM - particulate matter SO_2 - sulfur dioxide NO_X - nitrogen oxides Source - Title V application

The Hydrochloric acid emissions from two steel pickling lines at LTV are regulated by the Hydrochloric Acid (HCl) Steel Pickling National Emission Standards for Hazardous Air Pollutants (NESHAP) as outlined in 40 CFR 63 Subpart CCC. These regulations were promulgated on June 22, 1999.

The LTV-IHW Steel plant is a large quantity generator of hazardous waste. The RCRA EPA Identification Number is IND005462601. The company operates five hazardous waste less than 90-day storage tanks and two less than 90-day roll-off boxes located at the No. 2 Tin Mill Water Treatment Plant. Seven hazardous waste streams are reportedly generated by the plant on a routine basis. These streams are listed and described in Table 3.

Hazardous Waste Stream	EPA #	Plant Source
Spent Pickle Liquor	K062 & D002	No. 2 Sheet Mill 66" Pickle Line No. 3 Sheet Mill 75" Pickle Line
Waste Chromic Acid	D002, D007 & D008	No. 2 Tin Mill Chrome Plating Line
Waste Sodium Dichromate	D007	No. 2 Tin Mill Tin Plating Line
Tin Line Wash Water	F007	No. 2 Tin Mill Tin Plating Line
Tin Line Slurry	F008	No. 2 Tin Mill Tin Plating Line
Wastewater Treatment Plant Sludge	F006	No. 2 Tin Mill wastewater Treatment Plant
Spent Petroleum Naphtha	D001, D018 & D039	Plant wide

LTV Steel currently has four underground storage tanks located at the Indiana Harbor Works facility. These include two diesel fuel tanks (2000 and 25,000 gallon capacities), a gasoline tank (10,000 gallons) and a waste oil tank (1000 gallons).

The LTV-IHW plant has approximately 250 transformers at the site. A total of 43 transformers reportedly contain polychlorinated biphenol (PCB) fluid (> 500 ppm PCBs). A large number of transformers located at the site have had the PCB fluid replaced with non PCB fluid.

Pursuant to EPCRA, 40 CFR Part 372, the LTV Steel Indiana Harbor Works reported (Form Rs) TRI data for six chemicals released from the plant during 1997. These chemicals include antimony compounds (1000 lbs.), chromium compounds (64,400 lbs.), ethylene glycol (250 lbs.), hydrochloric acid (121,000 lbs.), manganese compounds (1,059,000 lbs.) and zinc compounds (1,510 lbs.).

SUMMARY OF FINDINGS

The significant findings of this investigation are summarized as follows. These findings are detailed in the separate media sections of this report.

CLEAN WATER ACT - NATIONAL POLLUTANT ELIMINATION SYSTEM (NPDES)

The CWA-NPDES inspection included a visual check of the plant's wastewater treatment systems, wastewater discharge outfalls, sampling and flow monitoring equipment and the laboratory used for wastewater analyses. In addition records related to NPDES permit self monitoring procedures and data were reviewed.

Areas of Noncompliance

- During this inspection self-monitoring data was reviewed and a list of instances where NPDES permit limits were exceeded during 1997, 1998, 1999 and through May 2000 is shown below:

Date	Outfall	Parameter	Measured Value	Permit Limit
2/15/00	101	T. Chromium	217.42 lbs/d	66.9 lbs/d
1/5/00	011	Oil & Grease	1645 lbs/d	1500 lbs/d
11/16/99	001	Total Residual Chlorine	0.05 mg/l	0.04 mg/l
8/20/99	101	T. Chromium	337 lbs/d	66.9 lbs/d
9/12/98	001	Total Cadmium	0.19 mg/l	0.003 mg/l
3/4/98	411	Oil & Grease	5511 lbs/d	5344 lbs/d
10/22/97	009	Phenol (4AAP)	5.3 lbs/d	4.4 lbs/d
6/19/97	411	Oil & Grease	8505 lbs/d	5344 lbs/d
6/19/97	411	Total Suspended Solids	23458 lbs/d	14576 lbs/d
5/28/97	101	Oil & Grease	1428 lbs/d	1250 lbs/d

- During this inspection over 40 water seeps were observed discharging to the intake channel from the wall of the north lagoon. These discharges are not included in the current NPDES permit. The company claimed during this investigation, however, that permit writers from both the USEPA and IDEM were aware some material was lost from the lagoon. No one at the company recalled observing the seeps before the inspection occurred.

  Samples of a seep discharge were collected and analyzed by USEPA for solids, oil & grease and metals analysis during this inspection, however, samples for organic analysis were not collected. The company was provided with split samples.

Areas of Concern

- The company has reported a number of "unauthorized discharges". These discharges can be grouped into four categories. They include: high(> 9.0 or 9.5 S.U.) and low (< 6.0) pH values at outfalls 101 and 211; wastewater bypasses; visible oil sheen at plant outfalls or on the ship canal; and the release of residual chlorine due to the failure of sodium bisulfite dechlorination systems.

  Outfall 211 is the discharge from the Oily Wastewater Treatment Plant to the North Lagoon. Outfall 101 is the discharge from the Central Treatment Plant. The pH of these discharges is limited in the NPDES permit to a range of 6.0 - 9.5 S.U. at 211 and 101. The permit requires the company to monitor these outfalls for pH once per week as a grab sample. The company performs this sampling and analysis as required. In addition, the company maintains pH probes on the discharges from these treatment plants. When the pH

measured by these probes is outside the required pH range the company reports this occurrence as a "unauthorized discharge". The company has reported 11 instances where the pH was outside the permitted range based upon probe measurements. The dates and affected outfall of these instances is listed in the following table:

Date	Outfall	Description
5/8/00	211	High pH for a 125 minute period
5/8/00	211	Low pH for a 75 minute period
4/19/00	101	Low pH for a 60 minute period
4/18/00	211	High pH for a 60 minute period
11/12/99	211	Low pH for a 15 minute period and high pH for 23 minute period
2/18/99	211	High pH for a 40 minute period
1/10/98	211	Low pH for a 180 minute period
10/23/97	211	High pH for a 50 minute period
9/11/97	211	Low and high pH for a 120 minute period
7/3/97	211	High pH for a 45 minute period
2/18/97	211	High pH for a 135 minute period

LTV Steel has reported several bypasses of its wastewater treatment systems at the Indiana Harbor Works since 1997. These include:

- A bypass of the central treatment plant (outfall 101) on 6/14/98 due to a power outage. The bypass lasted from 1:00 AM to 2:50 AM

- A bypass of the blast furnace recycle plant occurred on 11/16/97 due to a power failure and the failure of a check valve on the backup system. The bypass lasted for a 30 minute period. The outfall affected was 010.

- A bypass of the water treatment filter plant occurred on 1/3/97 due to a power failure. The outfall affected was 011.

A floating gate valve controls the level of discharge from outfall 101 in order to prevent water from entering the building basement. During a power failure this gate may open and cause a bypass of the central treatment plant.

Visible oil sheens at LTV outfalls or on the Indiana Harbor Ship Canal near LTV property have been reported by the company. A list summarizing these company reports is shown in the following table:

Date	Location/Outfall	Description
4/19/00	sanitary sewer #932	The sanitary sewer at LTV showed signs of oil and grease
4/19/00	No. 3 pumphouse	Oil sheen on canal at No. 3 pumphouse
4/4/00	No. 3 pumphouse	Oil sheen on canal at No. 3 pumphouse
6/12/99	No. 3 pumphouse	Oil got past boom at pumphouse into canal

4/14/99	No. 3 pumphouse	Oil boom broke loose at pumphouse releasing oil sheen to canal
9/29/98	No. 2 pumphouse	Oil sheen at No. 2 pumphouse
9/3/98	No. 3 pumphouse	Oil sheen on No. 3 intake
8/6/97	No. 2 intake	Oil sheen on intake reported due to subsidence of LTV landfill
7/28/97	Outfall 002	Oil sheen to ship canal due to break in storm sewer line
7/11/97	Outfall 002	Oil discharged to ship canal due to sump pump failure at No. 2 Sheet Mill

The large number of reported oil sheens at the No. 3 Pumphouse may be due to the fact that the wastewater discharge from the North lagoon is routed to the No. 3 intake in order to recycle the flow. The system is configured in such a way that some water discharged from the lagoon may flow back into the Indian Harbor Ship Canal. It seems likely the source of the oil sheens reported at the pumphouse may be from the North lagoon discharge, and may be an unpermitted discharge. Also, the company could not provide documentation for the landfill containing the N. Lagoon. Without this documentation from the Corps. the N. Lagoon may remain waters of the State of Indiana until filled by LTV and approved by the Corps.

The company has reported the failure of the sodium bisufite dechlorination systems at two outfalls. This occurred at outfalls 002 on 6/12/99 and at outfall 009 on 5/19/99.

CLEAN WATER ACT - SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

The CWA-SPCC inspection included a review of the company's SPCC plan and a visual inspection of selected oil storage and handling areas at the LTV Steel Plant.

Areas of Noncompliance

- The company failed to completely implement the current SPCC plan. Specifically, debris in several of the secondary containment structures was observed; drainage valves on some secondary containment were observed to be unlocked; secondary containment was found to be lacking at one of the loading areas.

- The current SPCC plan was found to be inadequate. The plan does not follow the sequence outlined in 40 CFR 112.7, and was found to be deficient in many areas. For example, information on bulk storage tanks, facility transfer operations, facility loading/unloading operations, personnel training, etc. was inadequate.

- The facility has not completed its Certification of Substantial Harm Determination form and made it part of the SPCC plan.

Areas of Concern

- The SPCC plan does not reflect the requirements of 40 CFR 112.7. It is recommended that the plan be rewritten and resubmitted for review.

CLEAN WATER ACT - FACILITY RESPONSE PLAN

The CWA-FRP inspection included a review of the company's Facility Response Plan and a visual inspection of selected oil storage and handling areas at the LTV Steel Plant

Areas of Noncompliance

- The current FRP did not meet all the requirements of 40 CFR 112.20(h). Specifically, no information was provided relative to an evacuation plan; the duties of the Qualified Individual were not included; the small, medium and worst case discharge scenarios were inadequate; discussion of discharge detection procedures, personnel and equipment was inadequate; and containment and drainage planning was inadequate.

Areas of Concern

- The facility is relying almost entirely on its contractor for oil spill response activities. There is little equipment and personnel at the facility to begin response activities immediately after a spill occurs. The plan states that LTV's oil spill response contractor is 2 hours away.

CLEAN AIR ACT

The Clean Air Act inspection consisted of a inspection of the various process areas at the plant and a review of documents relating to the numerous air emission sources. The inspection focused primarily on sources at the blast furnaces, basic oxygen furnace (BOF) shop, sinter plant, CFC program, degreasers, and asbestos projects. The investigation included visible emission observations of a number of emission sources and reviewing on-site records.

Areas of Noncompliance

- Visible emission observations made by U.S. EPA personnel show several air emission sources at LTV Steel exceeded the visible emission limits in the Indiana State Implementation Plan. The sources where limits were exceeded and the dates the violations were observed are listed below:

	Sinter Cooler	6/26-27/00	326 IAC 5-1-2.2(B)
	Sinter Plant-Windbox Stack	6/26, 30/00	326 IAC 5-1-2.2(B)
	Basic Oxygen Furnace Roof Monitor	6/27/00	326 IAC 6-1-10.1(e)
*	Blast Furnace H-3 Casthouse	6/28-29/00	326 IAC 5-1-2.2(B)
*	Blast Furnace H-3 Equilization Valve	6/29/00	326 IAC 5-1-2.2(B)
*	Blast Furnace H-4 Furnace Valve	6/29/00	326 IAC 5-1-2.2(B)
*	Plant wide Asbestos Projects	Various Dates	40 CFR 61.145(b)(1)

The emissions from the sinter cooler appeared to be during the transfer of sinter from the cooler to a conveyor belt. LTV said that this has been sent to its engineering to look at possible control options. The emissions from the windbox stack were attributed to possibly being organics in the plume.

The emissions observed from the BOF roof monitor occurred during the splashing of hot metal on vessel #2 during blow.

The emissions observed from the H-3 blast furnace equalization valve and from the H-4 blast furnace, furnace valve will have to be further investigated. The H-3 blast furnace casthouse emissions appear to be from the nitrogen blanketing blowing slag emissions through the roof monitor. LTV has an issue paper which reflects its views on visible emissions through this casthouse which it feels are biased high.

- LTV has had many asbestos removal projects at its facility. Comparing removal notices and asbestos waste manifests, LTV did not notify any agency about asbestos removal at certain projects. The amount of waste shipped off-site was above the amount set in the asbestos NESHAP for subject sites.

Areas of Concern

- LTV does not handle any aspect of asbestos projects anymore except for keeping the appropriate paperwork. All asbestos work is being done by a contractor.

- U.S. EPA plans on issuing a Section 114 letter to LTV to conduct stack testing on the windbox stack for particulate matter due to the high opacity. Records reviewed on-site show that this source has not had a particulate test for years. The company does test for sulfur dioxide and volatile organic compounds. These tests showed compliance.

RESOURCE CONSERVATION AND RECOVERY ACT

The RCRA inspection of the LTV Steel Plant included a visual inspection of the waste generation points, less than 90-day storage areas, tank and satellite accumulation areas. Numerous solid waste management units at the site were also inspected. These included: terminal and north lagoons; waste generation areas within operating mills and idled production areas such as the coke plant, seamless pipe mill, and #1 tin mill; and areas in the plant where chemical spills or releases have occurred. Hazardous waste manifests, the contingency plan, training records and waste analysis plan were also reviewed during the inspection.

Areas of Noncompliance

- **Waste determination**

  329 IAC 3.1-7-8/40 CFR 262.11, Failure to properly characterize the following solid wastes to determine if they are hazardous wastes as required. Overall the wastes listed below make up a very small volume of the wastes generated a the facility

  - Three 55-gallon containers of unknown waste material located near the carpentry shop.

- Five 55-gallon and one 30-gallon containers of unknown waste material located within the Seamless pipe mill.
- Paint booth filters from the electric shop.
- Burn-off oven residue from the electric shop.
- Blast media from the electric shop.
- Partially spent aerosols from the electric shop.
- Waste batteries located near the carpentry shop.
- Waste analysis #73-37 exceeded holding times.

- **Manifests**

329 IAC 3.1-7-1/40 CFR 262.20(a), LTV failed to list all the hazardous waste characteristic on a manifest silver was not listed as required on Manifest IL6432621.

- **Record Retention**

329 IAC 3.1-7-1/40 CFR 262.40(c),
- LTV failed to retain a copy of waste analysis data for waste stream 73-39 (Lab. Waste solvent).
- Remediation analytical for a spill of F007 Tin line washwater 4/8/97.

- **Training**

329 IAC 3.1-10-1/40 CFR 265.16
LTV failed to provide hazardous waste training to Mr. Calihan as required by the facility training plan.

- **Contingency Plan**

329 IAC 3.1-10-1/40 CFR 265.54(d), LTV failed to update the list of emergency coordinators within its contingency plan. Emergency coordinators Coe and Anderson were replaced but the plan was not updated.

- **Emergency Procedures**

329 IAC 3.1-10-1/40 CFR 265.56(j), LTV failed to provide a written report to the administrator following an incident of releases of hazardous wastes or hazardous waste constituents. At minimum eight spill events occurred since 1997 and no reports were filed.

- **Hazardous Waste Tanks**

329 IAC 3.1-10-1/40 CFR 265.195, Chrome side tank inspection was not conducted on 6/26/00 as required.

329 IAC 3.1-10-1/40 CFR 265.196(f), Certification of repair of the K062 pickle liquor tank at #3 Sheet Mill was not provided the Director as required.

- **Used Oil**

40 CFR 279.22(c), A used oil tank located at the Central Wastewater treatment plant was not marked with the words "Used Oil" as required. Used oil tanks located at the processor site were marked but were so covered with oily residue that the markings were not clearly visible.

40 CFR 279.22(d)(3), Used oil releases and poor housekeeping were evident at Station #158 and the Central Wastewater treatment plant.

40 CFR 279.52(a)(1), Used oil releases and poor housekeeping were evident through the processing unit, on the ground in loading areas and covering process tanks and associated equipment.

40 CFR 279.56(a)(1), Used oil tracking forms for shipments of used oil received from LTV's Hennepin, Illinois facility do not contain the transporters address as required.

40 CFR 279.56(a)(4), Used oil tracking forms for shipments of used oil received from LTV's Hennepin, Illinois facility do not contain the transporters identification number as required.

40 CFR 279.56(a)(1), Used oil tracking form IL8464494 for shipment of used oil received from LTV's Hennepin, Illinois facility does not contain the date of acceptance as required..

Areas of Concern

- House keeping at metal finishing areas (Tin Mills)Sampling needed to confirm releases of HW constituents.
- Failure to list some underlying constituents on some LDR forms.
- K062 cleanup residues, several releases of K062 have been documented. Clean-up of those spills appear inconsistent. #3SM Ferric Chloride tank areas and nearby storm drains should be sampled for chromium.
- Detection limits on analyses conducted in 1998 were higher than LDR UTS levels in most cases(and TCLP level for cadmium), reducing the likelihood of competent LDR determinations.
- **RCRA 7003,** Management of used oil on a surface impoundment. Used oil is recovered from the North Lagoon on a regular basis. Oil could expose migratory birds. Facility does have a USFWS permit to control gull numbers on a portion of the facility.
- Several SWMUs identified by EPA corrective action program should be assessed to determine the degree of existing contamination.

RESOURCE CONSERVATION AND RECOVERY ACT - UNDERGROUND STORAGE TANKS

The underground storage tank inspection consisted of a visual inspection of the four active underground storage tanks and a review of the UST records for these units.

Areas of Noncompliance

- None

Areas of Concern

- None

TOXIC SUBSTANCES CONTROL ACT - POLYCHLORINATED BIPHENYLS

The TSCA-PCB inspection was conducted by IDEM personnel and consisted of a visual inspection of all PCB and PCB contaminated transformers at the LTV plant. Company records related to PCB handling at the site were also reviewed.

Areas of Noncompliance

- During the inspection, samples were collected by IDEM personnel at five locations near transformers and PCB handling areas where spills or leaks were suspected. These samples, three soil samples and two wipe samples, were analyzed for PCBs. Split samples were also provided to the company during this inspection.

  All the samples indicated concentrations of PCBs. A list of the sites sampled and the PCB concentrations measured are shown below:

  - Soil sampes (2) collected adjacent to transformer located in pickler/welder area (41,000 mg/kg of Aroclor 1260 & 11,000 mg/kg of Aroclor 1260)

  - Wipe sample collected in secondary containment area of PCB storage location (11 ug/cm^2)

  - Wipe mud/debris sample collected outside seconary containment area of PCB storage location (84 mg/kg of Aroclor 1254)

  - Soil sample collected under transformer number 188 (19 mg/kg of Aroclor 1260)

  - Wipe sample collected from floor area adjacent to transformer No. 59 (240 ug/cm^2 of Aroclor PCBs)

Areas of Concern

- None

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

The EPCRA screening inspection consisted of a review of documents related to the EPCRA regulations. These included: annual Form R submittals, Tier II forms, spills and release notifications.

Areas of Noncompliance

- None

Areas of Concern

- The company reported two EPCRA/CERCLA releases above reportable quantities. These included a release of 400 lbs of perchloroethylene (CAS # 127-18-4) on 5/1/98 at 1:15 PM and a release of 500 gallons of waste acid (HCl) on 12/31/97 at approximately 3:00 AM.

  The perchloroethylene release was reported to the NRC at 3:58 PM, to the SEPC at 4:02 PM and to the LEPC at 4:15 PM. on 5/1/98 . A follow-up notice was sent regarding this incident on 5/15/98.

  The HCl waste acid spill was reported to the NRC at 5:32 AM and the SEPC on 5:27 AM on 12/31/97. This HCl spill reportedly did not leave the plant site.